

PO No	Supplier	Line No	Rel No	Terms	Purchased Item	Description	For Part	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit
P0039131	THV001-VC	1		1 Net 30	M6061T6B0.500X12.000	6061-T6 Bar .500 X 12.00 MATERIAL: 6061-T6 T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				24	3/2/2018	24	S047293		Stock	3/2/2018	\$ 17.64 / ft
		2			M6061T6B0.500X05.000	6061-T6 Bar .500 X 5.00 MATERIAL: 6061-T6 T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				24		24	S047294		Stock	3/2/2018	\$ 7.35 / ft
		3			M6061T6B1.000X1.000	6061T6 Bar 1.000 X 1.000 MATERIAL: 6061-T6 T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				24		24	S047295		Stock	3/2/2018	\$ 2.94 / ft
		4			M6061T6B1.000X02.000	6061-T6 Bar 1.00 X 2.00 MATERIAL: 6061-T6 T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				24		24	S047296		Stock	3/2/2018	\$ 5.88 / ft
		8			M6061T6B0.750X06.000	6061T6 Bar .750 X 6.00 MATERIAL: 6061-T6 T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				12		12	S047297		Stock	3/2/2018	\$ 13.23 / ft
		9			M6061T6B1.250X02.000	6061T6 Bar 1.250 X 2.000 MATERIAL: 6061-T6 T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft				12		12	S047298		Stock	3/2/2018	\$ 7.35 / ft
		10			M6061T6S.080	6061-T6 .080 Sheet MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf				96		96	S047299		Stock	3/2/2018	\$ 4.23 / sf
		11			M6061T6S.3125	6061-T6 .3125 Sheet MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf				48		48	S047300		Stock	3/2/2018	\$ 11.01 / sf
Total:																	
265																	
312																	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada
Tel (613) 632-5200

PURCHASE ORDER

PO039131

Supplier:

THY001-VC
Thyssenkrupp Materials CA Ltd
O/A VPK Metal- c/o T27540
PO Box 4275, Postal "A"
Toronto
ON
M5W 5V8 Canada
Phone: 905 669 9444
Fax: 905 738 9033
1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Ship To:

1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No:

PO039131

PO Date:

2/26/18

Due Date:

3/2/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact:

Lavoie, Chantal
Phone: clavoie@dartaero.com

Via:

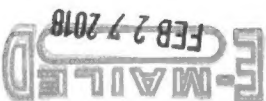
Ground

Pynt Terms:

Net 30

Freight Terms:

Special Comments: QUOTE NO: 1203013512



Items

Line Item	Part	Supplier	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M6061T6B0.500X12.000		6061-T6 Bar .500 X 12.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	24 ft	0 ft		\$17.64/ft	\$423.36
2	M6061T6B0.500X05.000		6061-T6 Bar .500 X 5.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	24 ft	0 ft		\$7.35/ft	\$176.40
3	M6061T6B1.000X1.000		6061T6 Bar 1.000 X 1.000 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	24 ft	0 ft		\$2.94/ft	\$70.56

MAR 02 2018

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MAR 02 2018

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MAR 02 2018

DAS
11
0-89

24

PURCHASE ORDER

Line	Item	Part	Supplier	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4		M6061T6B1.000X02.000		6061-T6 Bar 1.00 X 2.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	24 ft	0 ft	\$5.88/ft	\$141.12	
MAR 02 2018 DAS 11 8-89											
5		M6061T6B1.500X02.500		6061-T6 Bar 1.50 X 2.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	60 ft	0 ft	\$11.03/ft	\$661.80	
6		M6061T6B2.250X2.250		6061T6 Bar 2.250 X 2.250 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/8/18	12 ft	0 ft	\$17.86/ft	\$214.32	
7		M6061T6B1.000X16.000		6061-T6 Bar 1.00 X 16.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/8/18	12 ft	0 ft	\$72.50/ft	\$870.00	
MAT'L 1.000" X 18.000" ACCEPTABLE											
8		M6061T6B0.750X06.000		6061T6 Bar .750 X 6.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	12 ft	0 ft	\$13.23/ft	\$158.76	
MAR 02 2018 DAS 11 8-89											

MAR 02 2018

DAS
11
9-89

17

PURCHASE ORDER

Items

Line Item	Part	Supplier	Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit	Extended Price
9	M6061TB1.250X2.000			6061TB Bar 1.250 X 2.000 : MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR PER QA-A-225/8 OR AMS-QQ-4117/4128/4115/4116 OR A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	3/2/18	12 ft	0 ft	12 ft	\$7.35/ft	\$88.20
10	M6061TB.080			6061-T6 .080 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QA-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive ft	Firmed	3/2/18	96 sf	0 sf	96 sf	\$4.2334375/sf	\$406.41
11	M6061TB.3125			6061-T6 .3125 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QA-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	3/2/18	48.648 sf	0 sf	49 sf	\$11.012169/sf	\$535.72
12	M304B0.750X1.500			304 Bar 0.750 X 1.500" : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	3/2/18	12 ft	0 ft	12 ft	\$12.78/ft	\$153.36

Grand Total: \$3,900.01

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents
A048 counterfeit parts avoidance, detection, mitigation and disposition program
A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.darttaerospace.com for further explanation.

Plex 2/26/18 2:08 PM dart.lavoie.chantal



thyssenkrupp

DELIVERY NOTE

thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789206*
BOL. NO: 2405789206
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP.COM

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR TO SHIPPING.

ATTN: CHANTAL/LINDA
**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER ****
**** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION
0010	ALREC76047
6061 T6511	Aluminum Extruded Rectangular
0.50000 X 12.0000 X 144	Mill Length
Nominal Chemistry/Act	Physical
Standard Packaging	
TAGNUM	QTY
UOM	VEND
PC	SERVICE C
2001313800	2

Total Gross Weight

181.000 lb

All items, not declared as partial delivery, are final quantities.
Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID



thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789206*
BOL. NO: 2405789206
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP.COM

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

*thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée. / thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.
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David Noordine - Director of Quality Assurance

thyssenkrupp Materials NA

thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5G8

DELIVERY NOTE

thyssenkrupp



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789207*
BOL. NO: 2405789207
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP.COM
P.COM

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA
** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.
ITEM DESCRIPTION

0010 ALREC00870

6061 T6511 Aluminum Extruded Rectangular
0.50000 (+-.009) X 5.0000 (+-.034) X 144 Mill Length
Nominal Chemistry/Act Physical
Standard Packaging
TAGNUM QTY UOMVEND VENDPO HLOT
2001313765 2 PC SERVICE C 5400383511 201801965
SAE AMS-QQ-A-200/8|1997:ROHS COMPLIANT;ASTM B 221|2014

Total Gross Weight

73.000 lb

All items, not declared as partial delivery, are final quantities.
Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID



DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789207*
BOL. NO: 2405789207
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP.COM

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance

DELIVERY NOTE

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DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE:

DOC. NO:

BOL. NO:

ORDER NO:

YOUR P/O:

CUSTOMER NO:

Route:

CONTACT:

TEL:

FAX:

EMAIL:

03/02/2018

2405789208*

2405789208

1403544606

39131

10058125

303UA

Stan Ivers

905-532-1350 ext 21350

905-738-9033 ext 9033

STAN.IVERS@THYSSENKRUPP.COM

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WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
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ATTN: CHANTAL/LINDA
** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

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ITEM DESCRIPTION

0010 ALSQ00013

6061 T6511 Aluminum Extruded Square

1.00000 " (+-.012) X 144 Mill Length

Nominal Chemistry/Act Physical

Standard Packaging

TAGNUM QTY UOMVEND

VENDPO

HLOT

PC SERVICE C 5400378112/ 201719989

2

SAE AMS-QQ-A-200/8/1997;ROHS COMPLIANT;ASTM B 221/2014

Total Gross Weight

31.000 lb

All items, not declared as partial delivery, are final quantities.
Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID



DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789208*
BOL. NO: 2405789208
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125

Route: 303UA
CONTACT: Stan Ivers

TEL: 905-532-1350 ext 21350

FAX: 905-738-9033 ext 9033

EMAIL: STAN.IVERS@THYSSENKRUPP.COM

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance

DELIVERY NOTE

thyssenkrupp



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789209*
BOL. NO: 2405789209
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP.COM

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA
** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION
0010 ALREC00173	6061 T6511 Aluminum Extruded Rectangular
	1.00000 (+-.012) X 2.0000 (+-.024) X 144 Mill Length
	Nominal Chemistry/Act Physical
	Standard Packaging
	TAGNUM QTY UOMVEND VENDPO HLOT
2001313767 2	PC SERVICE C 5400381107 201801773
	SAE AMS-QQ-A-200/8 1997;ROHS COMPLIANT;ASTM B 221 2014
	All items, not declared as partial delivery, are final quantities.
	Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID
	Total Gross Weight
	60.000 lb



DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789209*
BOL. NO: 2405789209
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP.COM

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

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David Noordine - Director of Quality Assurance

DELIVERY NOTE

thysenkupp



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7



DATE: 03/02/2018
DOC. NO: 2405789212*
BOL. NO: 2405789212
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKUP
P.COM

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TO SHIPPING.
ATTN: CHANTAL/LINDA
** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

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ITEM	DESCRIPTION
0010	ALRECC00274

6061 T6511 Aluminum Extruded Rectangular
0.7500 (+-.010) X 6.0000 (+-.044) X 144 Mill Length

Nominal Chemistry/Act Physical

Standard Packaging

TAGNUM	QTY	UOMVEND	VENDPO	HLOT
2001313769	1	PC	KAISER BE	5400386392

2001313769 1

SAE AMS-QQ-A-200/8|1997;ROHS COMPLIANT;ASTM B 221|2014

Total Gross Weight

67.000 lb

All items, not declared as partial delivery, are final quantities.
Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID



thyssenkrupp Materials NA, 2821 Langstaff Road, Concord, ON L4K 5G6

DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789212*
BOL. NO: 2405789212
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
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*thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée./ thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.
*Nous certifions que le document reproduit ici est une copie conforme du rapport fourni par le fournisseur du matériel où les données résultent de l'analyse faite par un laboratoire qualifié/ We certify that the document reproduced here is true to the report provided by the equipment supplier where the data are the result of analysis by a qualified laboratory.

David Noordine - Director of Quality Assurance



thyssenkrupp

DELIVERY NOTE

COPY



DATE: 03/01/2018

DOC. NO: 2405789213*

BOL. NO: 2405789213

ORDER NO: 1403544606

YOUR P/O: 39131

LOADING NO: 3510210926

CUSTOMER NO: 10058125

Route: 303UA

CONTACT: Stan Ivers

TEL: 905-532-1350 ext 21350

FAX: 905-738-9033 ext 9033

EMAIL: STAN.IVERS@THYSSENKRUPP

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

**MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.**

**ATTN: CHANTAL/LINDA
** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAGE NO.
------	-------------	-----------------	-------------

0010	ALREC00726	1 PC	1008339687
------	------------	------	------------

6061 T6511 Aluminum-Extruded Rectangular
1.25000 (+-.008) X 2.0000 (+-.008) X 144 Mill Length
Nominal Chemistry/Act Physical

Standard Packaging

2001313770	1	PC	SERVICE C	201800937	1
------------	---	----	-----------	-----------	---

SAE AMS-QQ-A-200/811997:ROHS COMPLIANT:ASTM B 2212014

Total Gross Weight

40.000 lb

All items, not declared as partial delivery, are final quantities.
Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID



thyssenkrupp

thyssenkrupp Materials NA 2821 Langstaff Road Concord, ON L4K 5G6

DELIVERY NOTE COPY

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE:

03/01/2018

DOC. NO:

2405789213*

BOL. NO:

2405789213

ORDER NO:

1403544606

YOUR P/O:

39131

LOADING NO:

3510210926

CUSTOMER NO:

10058125

Route:

303UA

CONTACT:

Stan Ivers

TEL:

905-532-1350 ext 21350

FAX:

905-738-9033 ext 9033

EMAIL:

STAN.IVERS@THYSSENKRUPP

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

"thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée. / thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.

"Nous certifions que le document reproduit ici est une copie conforme du rapport fourni par le fournisseur du matériel ou les données résultent de l'analyse faite par un laboratoire qualifié/ We certify that the document reproduced here is true to the report provided by the equipment supplier where the data are the result of analysis by a qualified laboratory.

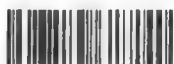
David Noordine - Director of Quality Assurance



thyssenkrupp

DELIVERY NOTE

COPY



DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 02/28/2018
DOC. NO: 2405789214
BOL. NO: 2405789214
ORDER NO: 1403544606
YOUR P/O: 39131
LOADING NO: 3510210836
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR TO SHIPPING.
ATTN: CHANTAL/LINDA
**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER ****
**** REFERENCED ON IT ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION	NET QTY1 / QTY2	PACKAGE NO.
0010	ALFLR00493	3 PC	1008338797

6061 Aluminum 16 Sheet
0.08000 (+-.0035) X Width 48.0000 X Length 144

Nominal Chemistry/Act Physical

Standard Packaging

TAGNUM QTY UOM VEND VENDPO HLOT PCS

2001313648 3 PC COPPER & 5400384115 34097/01

SAE AMS 4027/N:ROHS COMPLIANT:ASTM B209 2014

Total Gross Weight

258.570 lb

All items, not declared as partial delivery, are final quantities.
Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID



thyssenkrupp

thyssenkrupp Materials NA 2821 Langstaff Road, Concord, ON L4K 5C6

DELIVERY NOTE COPY

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 02/28/2018

DOC. NO:

2405789214*

BOL. NO:

2405789214

ORDER NO:

1403544606

YOUR P/O:

39131

LOADING NO:

3510210836

CUSTOMER NO:

10058125

Route:

303UA

CONTACT:

Stan Ivers

TEL:

905-532-1350 ext 21350

FAX:

905-738-9033 ext 9033

EMAIL:

STAN.IVERS@THYSSENKRUPP

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

"thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée. / thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.

"Nous certifions que le document reproduit ici est une copie conforme du rapport fourni par le fournisseur du matériel où les données résultent de l'analyse faite par un laboratoire qualifié/ We certify that the document reproduced here is true to the report provided by the equipment supplier where the data are the result of analysis by a qualified laboratory.

David Noordine - Director of Quality Assurance

DELIVERY NOTE

thyssenkrupp



①
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789215*
BOL. NO: 2405789215
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125
Route: 303UA
CONTACT: Stan Ivers
TEL: 905-532-1350 ext 21350
FAX: 905-738-9033 ext 9033
EMAIL: STAN.IVERS@THYSSENKRUPP.COM

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR TO SHIPPING.

ATTN: CHANTAL/LINDA

**** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER ****

Deliveries are carried out for your account and risk acc. to our Gen. Terms & Cond. of Delivery and Payment.

ITEM	DESCRIPTION
0010	OFFERING .3125X48.5X144.5
1 PC	1008338932

6061 Aluminum T651 Sheet
0.31200 X Width 48.5000 X Length 144.5000

Actual Chemistry/Act. Physical
Standard Packaging
TAGNUM QTY UOMVEND VENDPO HLOT

2001313673 1
PC CONSTELLI 0000282714 X51665

Total Gross Weight 369.000 lb

All items, not declared as partial delivery, are final quantities.
Delivery Terms: PPD gem. Incoterms 2000 Prepaid PREPAID



DELIVERY NOTE

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON K6A 1K7

DATE: 03/02/2018
DOC. NO: 2405789215*
BOL. NO: 2405789215
ORDER NO: 1403544606
YOUR P/O: 39131
CUSTOMER NO: 10058125

Route: 303UA
CONTACT: Stan Ivers

TEL: 905-532-1350 ext 21350

FAX: 905-738-9033 ext 9033

EMAIL: STAN.IVERS@THYSSENKRUPP
P.COM

CERTIFICAT DE CONFORMITÉ/CERTIFICATE OF COMPLIANCE

*thyssenkrupp Matériaux NA certifie que le matériel décrit ci-dessus est conforme aux dessins ou spécifications exigés sur le bon de commande et qui sont en vigueur à la date ou la commande a été acceptée./ thyssenkrupp Materials NA certifies that the material described above is in accordance with the drawings or specifications called for on said order that are current on the date order was accepted.
*Nous certifions que le document reproduit ici est une copie conforme du rapport fourni par le fournisseur du matériel où les données résultent de l'analyse faite par un laboratoire qualifié/ We certify that the document reproduced here is true to the report provided by the equipment supplier where the data are the result of analysis by a qualified laboratory.

David Noordine - Director of Quality Assurance

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061H60.500X12.000 DATE: MAR 02 2018
 PO / BATCH NO.: 039131/5047293

MATERIAL CERT REC'D: YES QUANTITY RECEIVED: 24'
 QUANTITY INSPECTED: 24' QUANTITY REJECTED: 0
 THICKNESS ORDERED: 0.500 THICKNESS RECEIVED: 0.500
 SHEET SIZE ORDERED: N/A SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

Testers located in the Quality Office

QC 18 INSPECTION
 ENGINEERING SIGNOFF (if required)
 INSPECTED BY: DAS
 SIGNED OFF BY: 11
 DATE: MAR 02 2018
 DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WW.WWW |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-09-03
MAD

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZND7-1)	CP	09 07 13
A	NEW ISSUE	DS	01 06 08
REV	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	g		
CHECKED	AS		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M6061T6B			
REV. B SHEET 1 OF 1			
TITLE 6061-T6 BAR			
SCALE NTS			
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Service Center Metals

5850 Quality Way
Prince George, VA 23875

Can Do.

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



OUR ORDER NUMBER	ITEM
941058	2

BILL TO

ThyssenKrupp Materials NA

SHIP TO

ThyssenKrupp Materials NA-Concord, ON

Quantity Certified 2,201 lbs 26 pcs

MANIFEST NUMBER

355888

CUSTOMER PO

5400383032

CUSTOMER PART NUMBER

ALREC76047

DIE NUMBER

PL0735

ALLOY/TEMPER

6061-T6511

DESCRIPTION

PL 500x12.000

DATE OF SHIPMENT

1/22/2018

SALESPERSON

D. Schroeder (Canada)

CERTIFICATION

ASTM-B221-14 StencilCont

SPECIFICATION

AMS-QQA-200/8 Rev-A

RoHS 2011/65/EU Compliant

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

This product is RoHS-2, REACH, and DFARS compliant.

SCM is ISO 9001-2015 certified

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
4	201718549	11/13/17	min 43.50	min 40.50	min 11.60
1	201800084	1/10/18	max 44.30	max 41.80	max 16.40

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	AL	Others		Melt Source:
												Each	Total	
002J180103L	201800084	6061	0.65	0.26	0.22	0.06	0.89	0.06	0.03	0.02	97.81	0.05	0.15	United States of America
002K171107J	201718549	6061	0.61	0.23	0.19	0.06	0.87	0.06	0.02	0.02	97.95	0.05	0.15	United States of America
002K171108B	201718549	6061	0.62	0.24	0.20	0.06	0.90	0.07	0.02	0.02	97.87	0.05	0.15	United States of America

SCM products are melted and extruded in the USA

Calvin J. Wiggins

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 1/22/2018

Rev 7/20/17

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____	DATE: <u>5 09 MAR 02 2018</u>

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

Testers located in the Quality Office

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y	
CORRECT FINISH	Y	
CORROSION	Y	
CORRECT GRAIN DIRECTION	Y	
CORRECT MATERIAL PER M-DRAWING	Y	
CORRECT THICKNESS	Y	
PHOTO REQUIRED	Y	
CORRECT REF # TO LINK CERT	Y	
CORRECT MATERIAL IDENTIFICATION	Y	
CORRECT M# ON THE MATERIAL	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	

MATERIAL CERT REC'D:	YES	THICKNESS ORDERED:	0.500
QUANTITY RECEIVED:	24'	THICKNESS RECEIVED:	0.500
QUANTITY INSPECTED:	24'	SHEET SIZE ORDERED:	N/A
QUANTITY REJECTED:	0	SHEET SIZE RECEIVED:	N/A

MATERIAL: <u>AK61660.000X05.000</u>	DATE: <u>MAR 02 2018</u>
PO / BATCH NO.: <u>039131/5047294</u>	

MATERIAL RECEIPT INSPECTION FORM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/415/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER:

M6061T6B T.TTT X WW.WWW/
THICK WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

B	REMOVE QQ-A-225/8 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (ZND7-1)	CP	09 07 13
A	NEW ISSUE	DS	01 06 08
DESIGN	DS	BY	DATE
DRAWN	DS	DART AEROSPACE LTD	
CHECKED	DS	DRAWING NO.	
MFG. APPR.	DS	M6061T6B	
APPROVED	DS	TITLE	
DE APPR	DS	6061-T6 BAR	
DATE	09.07.13	COPYRIGHT © 2001 BY DART AEROSPACE LTD.	
NO DIMENSIONS SHALL BE GIVEN TO A DRAWING WITHOUT THE SIGNATURE OF THE DRAWING ENGINEER.			
REV. B SHEET 1 OF 1 SCALE NTS			

RELEASED
2009-09-03
JMD



Can Do.

Service Center Metals

5850 Quality Way
Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



OUR ORDER NUMBER
941295

ITEM
7

BILL TO

ThyssenKrupp Materials NA

SHIP TO

ThyssenKrupp Materials NA-Concord, ON

Quantity Certified 2,647 lbs 75 pcs

MANIFEST NUMBER

357463

CUSTOMER PO

5400383505

CUSTOMER PART NUMBER

ALREC00870

DIE NUMBER

RB0101

ALLOY / TEMPER

6061-T6511

DESCRIPTION

SCRB .500x5.000

DATE OF SHIPMENT

2/7/2018

SALESPERSON

D. Schroeder (Canada)

CERTIFICATION

ASTM-B221-14 StencilCont

SPECIFICATION

AMS-QQA-200/8 Rev-A

SPECIFICATION

RoHS 2011/65/EU Compliant

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

This product is RoHS-2, REACH, and DFARS compliant.

SCM is ISO 9001-2015 certified

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
3	201801965	2/6/18	min 39.40 max 44.50	min 36.90 max 40.60	min 17.80 max 20.40

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	AL	Each	Total	Others	Melt Source:
002K180128L	201801965	6061	0.62	0.28	0.19	0.08	0.89	0.08	0.03	0.03	97.81	0.05	0.15		United States of America

SCM products are melted and extruded in the USA

Calvin J. Wiggins

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 2/7/2018

Rev 7/20/17

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:	DATE: MAR 02 2018

Testers located in the Quality Office

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y	
CORRECT FINISH	Y	
CORROSION	Y	
CORRECT GRAIN DIRECTION	Y	
CORRECT MATERIAL PER M-DRAWING	Y	
CORRECT THICKNESS	Y	
PHOTO REQUIRED	Y	
CORRECT REF # TO LINK CERT	Y	
CORRECT MATERIAL IDENTIFICATION	Y	
CORRECT M# ON THE MATERIAL	Y	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	

Heat # 201719489
Asm B821

MATERIAL CERT REC'D:	4.5	THICKNESS ORDERED:	1.000
QUANTITY RECEIVED:	24	THICKNESS RECEIVED:	1.000
QUANTITY INSPECTED:	24	SHEET SIZE ORDERED:	N/A
QUANTITY REJECTED:	0	SHEET SIZE RECEIVED:	N/A

MATERIAL: Model 681.000X1.000	DATE: MAR 02 2018
PO / BATCH NO: 038131/5047345	

MATERIAL RECEIPT INSPECTION FORM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/7651/76510/76511/762 ALUMINUM BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/415/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 ~~OR ASTM B221~~ *ed*

PART NUMBER:

M6061T6B | T.TTT | X | WW.WWW |
THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (Zn D7-1)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV		BY	DATE
DESIGN	DS	DESCRIPTION	
DRAWN	<i>AD</i>	DART AEROSPACE LTD	
CHECKED	<i>AD</i>	HAMMERSBURY, ONTARIO, CANADA	
MFG APPR.	<i>AD</i>	DRAWING NO. M6061T6B	
APPROVED	<i>AD</i>	REV. B	
DE APPR.	<i>AD</i>	SHEET 1 OF 1	
DATE	09.07.13	TITLE 6061-T6 BAR	
		SCALE NTS	

RELEASED
2009-09-03
MSD

THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR THE PURPOSES FOR WHICH IT WAS ORIGINALLY DESIGNED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.



Service Center Metals

5850 Quality Way
Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

BILL TO		THYSSSENKRUPP MATERIALS NA		SHIP TO		THYSSSENKRUPP MATERIALS NA-CONCORD, ON		Quantity Certified		2,056 lbs		144 pcs	
MANIFEST NUMBER		353651		CUSTOMER PO		5400378112		CUSTOMER PART NUMBER		ALSQ00013		CUSTOMER PART NUMBER	
DIE NUMBER		MSQ1825		ALLOY / TEMPER		6061-T6511		DESCRIPTION		MSQ-1.000 + 012/-0		DATE OF SHIPMENT	
DATE OF SHIPMENT		12/28/2017		SALESPERSON		D. Schroeder (Canada)		CERTIFICATION		ASTM-B221-14 Stencil Cont		SPECIFICATION	
SPECIFICATION		AMS-QQA-200/8 Rev-A		RoHS 2011/65/EU Compliant		OUR ORDER NUMBER		938141		ITEM		3	

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

This product is RoHS-2, REACH, and DFARS compliant.

SCM is ISO 9001-2015 certified

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
15	201719989	12/5/17	min 45.90 max 53.00	min 42.50 max 49.90	min 11.60 max 18.80

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	AL	Each	Total	Others	Melt Source:
001E171125B	201719989	6061	0.75	0.37	0.31	0.11	0.87	0.11	0.10	0.03	97.35	0.05	0.15		United States of America
001E171127K	201719989	6061	0.72	0.37	0.31	0.09	0.88	0.11	0.08	0.03	97.41	0.05	0.15		United States of America
001E171129B	201719989	6061	0.74	0.37	0.32	0.11	0.89	0.10	0.06	0.03	97.38	0.05	0.15		United States of America
001J171103B	201719989	6061	0.75	0.38	0.33	0.10	0.92	0.10	0.06	0.03	97.32	0.05	0.15		United States of America

SCN products are melted and extruded in the USA

Calvin J. Wiggins

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 12/28/2017

Rev 7/2017

From: TK Materials CA, Ltd.

Cust. DART AEROSPACE LTD

CstAr

Wgt.: 28 LB

CstOr 39131

Date 02/28/2018

Del.: 2405789208

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 766166L000 X02.000 DATE: MAR 02 2018
 PO / BATCH NO.: 239131/5047296

MATERIAL CERT REC'D: YES QUANTITY RECEIVED: 24
 QUANTITY INSPECTED: 24 QUANTITY REJECTED: 0
 THICKNESS ORDERED: 1.000 THICKNESS RECEIVED: 1.000
 SHEET SIZE ORDERED: N/A SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	<u>45in B221</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	<u>Heat #201801773</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.	HRC	HRB	DUR A	DUR D	WEBSTER
RECORD RESULTS BELOW					
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

Testers located in the Quality Office

QC 18 INSPECTION
 ENGINEERING SIGNOFF (if required)
 INSPECTED BY: DAS
 SIGNED OFF BY: _____
 DATE: MAR 02 2018

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION:

QC-A-225/8 OR AMS-QC-A-225/8 (OR AMS 4117/4128/415/4116)
OR QC-A-200/8 OR AMS-QC-A-200/8 (OR AMS 4180)
OR ASTM B211 OR ASTM B221

PART NUMBER:

M6061T6B | T.TTT | X | WWW.WWW |

THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WWW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

B	REMOVE QC-A-225/8 OPTION, REFORMAT NOTES, ADD ASTM B211/B21 (Zn Dy+1)	CP	09 07 13
A	NEW ISSUE	DS	01 06 08
REV	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN	DS		
CHECKED	DS		
MFG. APPR.	DS		
APPROVED	DS		
DE APPR.	DS		
DATE	09.07.13		
DART AEROSPACE LTD HAMMERSBURY, ONTARIO, CANADA		REV. B	
DRAWING NO. M6061T6B		SHEET 1 OF 1	
TITLE 6061-T6 BAR		SCALE NTS	
COPYRIGHT © 2001 BY DART AEROSPACE LTD			

RELEASED
2009-05-03
M



Service Center Metals

5850 Quality Way
Prince George, VA 23875

Can Do.

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



BILL TO		MANIFEST NUMBER		DATE OF SHIPMENT		OUR ORDER NUMBER		ITEM	
ThyssenKrupp Materials NA		357338		2/6/2018		942151		1	
SHIP TO		CUSTOMER PO		SALESPERSON		CERTIFICATION			
ThyssenKrupp Materials NA-Concord, ON		5400381107		D. Schroeder (Canada)		ASTM-B221-14 StencilCont			
Quantity Certified		3,084 lbs		108 pcs		SPECIFICATION			
		CUSTOMER PART NUMBER		DESCRIPTION		SPECIFICATION			
		ALREC00173		MQRB 1.008 x 2.000		AMS-QQA-200/8 Rev-A			
						RoHS 2011/65/EU Compliant			

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6 also meet the requirements of 6061-T6.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

This product is RoHS-2, REACH, and DFARS compliant.

SCM is ISO 9001-2015 certified

Mechanical Properties

Tests	Lot No.	Test Date		Ultimate Tensile Strength (KSI)		Yield Strength (KSI)		Elongation	
		min	max	min	max	min	max	min	max
10	201801773	47.80	51.50	44.10	48.50	15.90	19.40		

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others		Melt Source:
											Each	Total	
001E180126C	201801773	6061	0.77	0.38	0.32	0.10	0.92	0.10	0.07	0.03	0.05	0.15	United States of America
001J180130A	201801773	6061	0.75	0.38	0.32	0.10	0.90	0.11	0.09	0.03	0.05	0.15	United States of America
01151802	201801773	6061	0.73	0.40	0.31	0.10	0.90	0.08	0.08	0.02	0.05	0.15	United States of America
01221802	201801773	6061	0.74	0.38	0.30	0.10	0.89	0.09	0.09	0.03	0.05	0.15	United States of America

SCM products are melted and extruded in the USA

Calvin J. Wiggins

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 2/6/2018

Rev 7/2017

From: TK Materials CA, Ltd.

Cust. PART AEROSPACE LTD

CstAr

Wgt.: 57 LB

CstOr 39131

Date 02/28/2018

Del.: 2405789209

Handwritten signature

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION	INSPECTED BY: <u>11</u>	DATE: <u>MAR 02 2018</u>
ENGINEERING SIGNOFF (if required)	SIGNED OFF BY:	DATE:

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
TYPE OF MATERIAL	SIZE OF TEST SAMPLE	HARDNESS / DUROMETER READING	testers located in the Quality Office	
HRC	HRB	DUR A	DUR D	WEBSTER
RECORD RESULTS BELOW				

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	
CORRECT FINISH	<input checked="" type="radio"/> Y	
CORROSION	<input checked="" type="radio"/> Y	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	ASTM 6821
CORRECT THICKNESS	<input checked="" type="radio"/> Y	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	Lot # 200106228
CORRECT # ON THE MATERIAL	<input checked="" type="radio"/> Y	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750
 THICKNESS RECEIVED: 0.750
 SHEET SIZE ORDERED: 11/4
 SHEET SIZE RECEIVED: 11/4

MATERIAL: 16061650.750X6.00 PO / BATCH NO.: 039131/5047297
 DATE: MAR 02 2018

MATERIAL RECEIPT INSPECTION FORM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6B | T.TTT | X | WW.WWW | THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES
"WW.WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

RELEASED
R 2009-09-03
MD

B	REMOVE QQ-A-250/11 OPTION, REFORMAT NOTES, ADD ASTM B211/B221 (Zn D7-1)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV	DESCRIPTION	BY	DATE
DESIGN	DS		
DRAWN			
CHECKED	AS		
MFG. APPR.	M6061T6B		
APPROVED			
DE APPR.			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B SHEET 1 OF 1	
TITLE 6061-T6 BAR		SCALE NTS	
COPYRIGHT © 2001 BY DART AEROSPACE LTD. THIS DOCUMENT IS UNCLASSIFIED NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED OR TO REPRODUCE IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.			



CERTIFIED TEST REPORT
<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CUSTOMER PO NUMBER: 5400386392-1		CUSTOMER PART NUMBER: ALREC00274		PRODUCT DESCRIPTION: .750 X 6.000 PRECISION WIDE BAR	
KAISER ORDER NUMBER: 6047474	LINE ITEM: 001	SHIP DATE: 02/09/2018	KAISER LOT NUMBER: Z00106228	ALLOY: 6061	TEMPER: T6511
WEIGHT SHIPPED: 5588.000 LB	QUANTITY: 88.000 PCS	B/L NUMBER: 621766	SOLD TO: THYSSENKRUPP MATERIALS NA PO BOX 5116 SOUTHFIELD, MI 48086-5116 USA		
SHIP TO: THYSSENKRUPP CANADA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA					

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
200106228	0001	0001	43.5	39.2	18.0	RE 94	N/A	N/A
200106228	0001	0002	44.0	39.4	17.7	RE 90	N/A	N/A
200106228	0001	0003	43.7	39.3	17.1	RE 92	N/A	N/A
200106228	0001	0004	44.3	39.8	16.4	RE 92	N/A	N/A
200106228	0002	0001	43.4	39.5	17.9	RE 91	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	SI	Fe	Cu	Mn	Mg	Cr	Zn	Tl	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
108158	.62	.26	.24	.08	.85	.06	.04	.02	.00	.00	.00	.01	.03

Applicable Requirements:

ASTM-B221-14 STENCILED ASME-SB221 2009 SECT II AMS-QQ-A-200/8A UNS#A96061 (T6511 also conforms to T6-not applicable to other tempers)

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested in conformance with applicable specifications forming a part of the Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Almee L. Macnowski, Quality & Technology Manager

Almee L. Macnowski

From: TK Materials CA, Ltd.

Del.: 2405789212

Gstax 39131

Date 02/28/2018

Wgt.: 64 LB

Plant Serial: 00321057
Kaiser Order Number: 6047474
Line Item: 001

Page 1 of 1

Thomas J. Smith

MATERIAL: M66176B1.250X02.000 PO / BATCH NO.: 039131/5047298 DATE: MAR 02 2018

THICKNESS ORDERED:	1.250
THICKNESS RECEIVED:	1.250
SHEET SIZE ORDERED:	21/4
SHEET SIZE RECEIVED:	21/4

QUANTITY RECEIVED:	121
QUANTITY INSPECTED:	121
QUANTITY REJECTED:	0

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y	
CORRECT FINISH	Y	
CORROSION	Y	
CORRECT GRAIN DIRECTION	Y	
CORRECT MATERIAL PER M-DRAWING	Y	5th Bay
CORRECT THICKNESS	Y	
PHOTO REQUIRED	Y	
CORRECT REF # TO LINK CERT	Y	Link # 201800937
CORRECT MATERIAL IDENTIFICATION	Y	
CORRECT M# ON THE MATERIAL	Y	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.
RECORD RESULTS BELOW

TYPE OF MATERIAL					SIZE OF TEST SAMPLE	HARDNESS / DUROMETER READING
HRC	HRB	DUR A	DUR D	WEBSTER		

Testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>11</u>	SIGNED OFF BY:
DATE: <u>MAR 07 2009</u>	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

1

1



Can Do.

Service Center Metals
5850 Quality Way
Prince George, VA 23875

**CERTIFIED INSPECTION REPORT AND TEST RESULTS
FOR EXTRUDED PRODUCTS**



OUR ORDER NUMBER	ITEM
941295	1

BILL TO
ThyssenKrupp Materials NA
SHIP TO

MANIFEST NUMBER
356210
CUSTOMER PO
5400383505

ThyssenKrupp Materials NA-Concord, ON
Quantity Certified 5,988 lbs 168 pcs

CUSTOMER PART NUMBER
ALREC00726

DIE NUMBER

MRB1792

DATE OF SHIPMENT

1/25/2018

ALLOY / ITEM

6061-T6511

SALESPERSON

D. Schroeder (Canada)

CERTIFICATION

ASTM-B221-14 StencilCont

SPECIFICATION

AMS-QQA-200/8 Rev-A

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

SCM is ISO 9001-2015 certified

This product is RoHS-2, REACH, and DFARS compliant.

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
5	201800937	1/22/18	min 50.30 max 52.60	min 47.10 max 49.20	min 15.80 max 18.90

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Each	Others Total	Melt Source
001E180112A	201800937	6061	0.75	0.38	0.31	0.10	0.91	0.10	0.06	0.03	97.37	0.05	0.15	United States of America
001E180119B	201800937	6061	0.76	0.38	0.33	0.11	0.92	0.10	0.09	0.03	97.28	0.05	0.15	United States of America
001J180116B	201800937	6061	0.72	0.39	0.33	0.10	0.88	0.10	0.08	0.03	97.37	0.05	0.15	United States of America

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 1/25/2018

Rev 7/2017

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION		INSPECTED BY: <u>77</u>	DATE: <u>MAR 02 2018</u>
ENGINEERING SIGNOFF (if required)		SIGNED OFF BY:	DATE:

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	

MATERIAL CERT REC'D:	YES
QUANTITY RECEIVED:	144#2
QUANTITY INSPECTED:	144#2
QUANTITY REJECTED:	0
THICKNESS ORDERED:	0.080
THICKNESS RECEIVED:	0.080
SHEET SIZE ORDERED:	4X12
SHEET SIZE RECEIVED:	4X12

MATERIAL: <u>M6061H5.080</u>	DATE: <u>MAR 02 2018</u>
PO / BATCH NO.: <u>039131/5047399</u>	

MATERIAL RECEIPT INSPECTION FORM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T62 ALUMINUM SHEET
SPECIFICATION *Handwritten: 6061-T6*
QC-A-250/11 OR AMS-QC-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209

PART NUMBER: M6061T6S | XXX THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)
EG. 0.063" THICK SHEET = M6061T6S.063
PREFERRED SIZE: .XXX BY 4FT BY 8FT

RELEASED
2009-09-10
Handwritten: MRP

B	REFORMAT DWG. ADD B209 SPEC (2N D6-1).	CP	06.07.13
A	NEW ISSUE	DS	01.06.06
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.13		
DRAWING NO. DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B	
M6061T6S		SHEET 1 OF 1	
TITLE 6061-T6 SHEET SPEC		SCALE NTS	
COPYRIGHT © 2007 BY DART AEROSPACE LTD. NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

Auftraggeber / customer: ThyssenKrupp Materials NA Copper and Brass Sales Division P.O. BOX 5116 SOUTHFIELD MI 48086 USA		Warenempfänger / consignee: CBS Atlanta 1500 Cherokee Pkwy ACWORTH GA 30102-1603 USA	
Bestell Nr. / order no.: 5400342513-R01		Datum / date: 2017 03 02	
Auftragsbest. Nr. / order confirm no.: 130077		Datum / date: 2017 04 13	
Lieferschein Nr. / delivery note: 89055159		Datum / date: 2017 07 31	

Produkt / product		Bedingungen / terms	
Form / form: Sheet		Technische Lieferbedingungen / techn. spec.: AMS-QQ-A-250/11, 08.1997 ASTM B 209 - 14 AMS 4027N, 07.2008 ASME SB-209, 2011a	
Werkstoff / material: 6061		Sondervorschrift / special terms:	

AB-Pos.	ord.-item.	34097/01	00	01/0083429/7	6061	Werkstoff	Kollo	Gewicht netto	Stk.
BNr/Los	Part	cast no.	material	packno.	weight net	pcs.	75		
Teillos	cast no.	material	packno.	weight net	pcs.	75			

Chemische Zusammensetzung [%] Gewichtssanteile / Chemical composition [%] weight proportion (OES)		(tuss Nr. / cast no.		material)	
01/0083429/7		6061		actual	
spec. min.		0.40		0.70	
spec. max.		0.80		0.46	
Si		Fe		Cu	
Mn		Mg		Cr	
Zn		Ti		Others	
Total		Others		Total	

Zugprüfung LT / tensile test LT		BNr/Los		Zustand		temper		direction		Tests	
spec. min.		42,0		35,0		10		[ksi]		[%]	
spec. max.		47,4		40,0		15		[ksi]		[%]	
to		LT		LT		2		from		47,4	
47,4		40,0		16		15		16		15	

Sonstige Prüfungen / other tests		Biegeversuch: OK / Transverse bend test: OK		Maßkontrolle: OK / Dimensional Check: OK		Oberfläche: OK / Surface inspection: OK	
----------------------------------	--	---	--	--	--	---	--



**Abnahmeprüfzeugnis 3.1 (EN 10204)
Inspection certificate - mill certificate**

Nr.: 89055159
Rev.: 0
Seite / page: 2 von / of 2
Datum / date: 2017 06 28

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Bemerkungen / notes
Gegossen und gefertigt in Österreich / Country of melt and manufactured in Austria

Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Werkstoffverständiger / factory specialist
E-Mail / e-mail: josef.klamper@amag.at
Josef Klamper

Herstellerhand: Österreich / goods origin: The goods are of Austrian origin.
Maschinell erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.

AMAG rolling GmbH, Postfach 32, A-5282 Ranshofen, Österreich - www.amag.at
AMAG rolling GmbH, P.O. Box 32, A-5282 Ranshofen, Austria - www.amag.at

From: ThyssenKrupp Materials NA

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:	DATE: MAR 02 2018

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

Testers located in the Quality Office

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y	
CORRECT FINISH	Y	
CORROSION	Y	
CORRECT GRAIN DIRECTION	Y	
CORRECT MATERIAL PER M-DRAWING	Y	
CORRECT THICKNESS	Y	
PHOTO REQUIRED	Y	
CORRECT REF # TO LINK CERT	Y	
CORRECT MATERIAL IDENTIFICATION	Y	
CORRECT # ON THE MATERIAL	Y	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	

MATERIAL CERT REC'D: Y	QUANTITY RECEIVED: 4812	THICKNESS ORDERED: 0.3125
QUANTITY INSPECTED: 4812	QUANTITY REJECTED: 0	THICKNESS RECEIVED: 0.3125
		SHEET SIZE ORDERED: 4x12
		SHEET SIZE RECEIVED: 4x12

MATERIAL: M6061H5.3125	DATE: MAR 02 2018
PO / BATCH NO: 039131/5047300	

MATERIAL RECEIPT INSPECTION FORM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T62 ALUMINUM SHEET

SPECIFICATION: QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027
OR ASTM B209

PART NUMBER: M6061T6S | XXX | THK

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M6061T6S 063

PREFERRED SIZE: XXX BY 4FT BY 8FT

RELEASED
2009-09-10
MP

B	REFORMAT DNG ADD B209 SPEC (2N 08-1)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR			
APPROVED			
DE APPR			
DATE	09.07.13		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B SHEET 1 OF 1 SCALE NTS	
DRAWING NO. M6061T6S		TITLE 6061-T6 SHEET SPEC	
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THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CA 14K 5C6 CONCORD

ALUMINIUM PLATE IN 6061 T651 MILL FINISH
According to AMS4027N

Your article :

Rolling lot	Production N	Weight	Quantity	Dimensions
X51665	6290767	6499.12 Lbs	29	0.312" x 48.50" x 144.50"

Mechanical and technological properties

The indicated values are in ksi for UTS and YS and % for A

[illegible]

Measured values

[illegible]

Chemical composition

The indicated values are in % by weight

Casting No	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Tl
Min	0.40	0.7	0.15	0.8	0.04	0.35	0.05	0.25	0.15
Max	0.8	0.7	0.40	0.15	1.2	0.35	0.05	0.25	0.15

Analysis results with test method based on EN14726, ASTM E1251 and ASTM E1621

71491381	0.68	0.4	0.27	0.01	1.1	0.20	<0.01	0.07	0.01		
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Other elements are compliant to the requirement: Each $\leq 0.05\%$ Total $\leq 0.15\%$

Remark

Product conforms to AMS4027N.

Technical characteristics of this product do also comply with
ASTM B209-14, ASTM B209M-14 and former AMS-QQ-A-250/11 rev.A

Casting and heat treatment of the referenced lot has been performed by Constellium Valais SA, Switzerland

A. Thurre (MSV-4)

Quality Plates

Valid without signature

Management System certified
ISO 9001 / ISO 14001 / OHSAS 18001